ACAPELLA DEVICE

AIM
To safely and effectively teach and supervise a service user using the Acapella device as an adjunct to sputum clearance.

BACKGROUND
Acapella is a handheld device that provides resistance to expiration, so giving positive expiratory pressure (PEP)\(^1\) combined with vibrations (oscillations). The PEP slows down expiration and holds open the smaller (peripheral) airways on a forced expiration. This allows for improved sputum movement from the peripheral airways, so improving sputum clearance as well as improving collateral ventilation.

Precautions
The service user must be able to generate adequate airflow to use the device
Ensure the service user pauses between breaths to avoid hyperventilation
Ensure the service user has manufacturer’s operating and cleaning instructions\(^2\)
Ensure the device is clean before using. (Acapella and mouthpiece should be cleaned as per manufacturer’s instructions).

Procedure
1. **Check plan** for length of treatment and any variations (e.g. position, device colour, resistance setting). Identify whether any observations need to be taken and do this prior to commencing the technique (as per the relevant competencies).
2. **Explain the reason for the technique:** e.g. ‘this is a device which helps loosen your sputum so it is easier to clear your chest. It works by providing a little resistance as you breathe out which holds your airways open, and causes the air in your chest to oscillate which helps move the sputum’
3. **Position of Service User:** check plan. The service user position is important as Acapella may be carried out with postural drainage to aid secretion removal. The service user may have preferred or more effective positions for sputum clearance.
4. **Position of Rehabilitation Assistant:** in front and to side of service user, so you can clearly observe their face and respiratory action throughout.
5. **Explain how to perform the exercise** ‘Sit in a comfortable position (or postural drainage position), take a deep breath in, place the mouthpiece between your teeth and make a tight seal with your lips, then blow slowly and forcefully into the Acapella. Keep your cheeks flat whilst breathing out. You will feel a fluttering/vibration in your lungs and neck if you are blowing out correctly (hard enough). Your breath out should
be 3-4 times longer than your breath in. Pause for a few seconds before repeating. You may need to ‘huff’ to clear secretions as they become loosened’.

6. **Ready …** ‘take a deep breath in put the mouthpiece between your teeth and seal with your lips. Now blow out into the mouthpiece – a long hard breath, keeping your cheeks flat. You should feel vibration in your lungs/neck’. Observe the service user and correct their technique as necessary. Check that they could feel the vibration and if not get them to breathe out harder. Ensure they breath out 3-4 times longer than they inhale. If the service user becomes wheezy **STOP and seek advice from team leader/senior**. If the service user has difficulty with the technique, try again **STOP and seek advice from registered practitioner**.

7. **On completion** seek feedback from service user re how they found the technique, and offer feedback on their technique. Ensure the service user is comfortable and not in distress.

8. **Document** in the Service User’s notes

9. **Feedback** clearly to the Registered Practitioner who delegated the task.

References

### SUPERVISED TASKS/EXERCISES CARRIED OUT BY REHABILITATION ASSISTANT – COMPETENCIES

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1. Read plan, identify exercise/technique and any variations (e.g. position, timing)
2. Decide where to undertake exercise/technique (e.g. in sitting, with PD or with relaxed breathing positions)
3. Appropriate explanation of the reason for the exercise/technique to Service User
4. Start position of Service User
5. Position of Rehab Assistant relative to Service User
6. Verbal explanation and demonstration of how to perform the exercise/technique, including when to use and any warnings
7. Supervision of exercise/technique
   - i) Verbal prompts and encouragement
   - ii) Appropriate correction
   - iii) Correct timing of repetitions and rest periods
   - iv) Appropriate use of touch
   - v) Appropriate recognition of when to stop and seek advice/help
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<td>Documentation</td>
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<td>Feedback to Registered Practitioner</td>
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**Sign and date when achieved**

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